SYSTEM AND METHOD FOR DETECTING REPETITIONS IN A MULTIMEDIA STREAM

ABSTRACT OF THE DISCLOSURE

Large amounts of multimedia data are transmitted over information networks in the form of a digital stream, analog video, or text captioning. Often, repetitions such as paid advertisements, theme music at the commencement of a TV broadcast, and common jingles and slogans occur in these streams. Detection of repetitions in a transmitted signal such as streaming audio or video is described, and includes extracting a plurality of samples from the information stream and accumulating the samples into segments comprising an interval of the transmitted signal. A vector indicative of the samples in each of the segments is generated, and each of the vectors in the segments is correlated to generate a covariance matrix, or signature, corresponding to the segment. Each of the covariance matrices are aggregated into a sequence of covariance matrices and compared to other covariance matrices to generate a distance matrix. The distance matrix includes a distance value, indicative of the similarity between the distance matrices, as a result of the comparing of each matrix. The distance matrix is then traversed to determine similar sequences of covariance matrices.